

REMARKS

Reconsideration of this application is respectfully requested in view of the foregoing amendment and the following remarks.

Entry of this Amendment is proper under 37 C.F.R. § 1.116 since this Amendment: (a) places the application in condition for allowance for reasons discussed herein; (b) does not raise any new issue regarding further search and/or consideration since the Amendment amplifies issues previously discussed throughout prosecution; (c) does not present any additional claims without canceling a corresponding number of finally-rejected claims; and (d) places the application in better form for appeal, should an appeal be necessary. The Amendment is necessary because it is made in reply to arguments raised in the rejection. Entry of the Amendment is thus respectfully requested.

By the foregoing amendment, claims 1, 14 and 20 have been amended. Claims 2-3 and 9 have been previously canceled. Thus, claims 1, 4-8 and 10-20 are currently pending in the application and subject to examination.

In the Office Action mailed March 21, 2006, claims 1, 4-8, 10-13 and 20 were rejected of under 35 U.S.C. § 103(a) as being unpatentable over Roberts (U.S. Patent No. 5,452,004). Claims 14-16 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Roberts in view of Ernest et al. (U.S. Patent No. 4,827,348, hereinafter "Ernest"). Claims 17-19 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Roberts in view of Ernest and further in view of Soeda et al. (U.S. Patent No. 5,382,974, hereinafter "Soeda"). It is noted that claims 1, 14 and 20 have

been amended. To the extent that the rejections remain applicable to the claims currently pending, the Applicant hereby traverses the rejections, as follows.

Claims 1 and 14, as amended, recite a MOS-type solid-state image pickup device of the type in which output signals necessary to obtain one frame of image data are sequentially generated row by row through shift operation of a row shift circuit, and claim 20, as amended, recites a digital camera including a MOS-type solid-state image pickup device of the type in which output signals necessary to obtain one frame of image data are sequentially generated row by row through shift operation of a row shift circuit.

As explained in the response filed on January 6, 2006, the image pickup device of Roberts is designed to allow random access. Thus, Roberts discloses an access decoder to enable random access, but does not disclose a row shift circuit for realizing row-by-row access. The Applicant respectfully submits that the function of row-by-row access of the claimed invention is different from the random access of Roberts.

Moreover, as explained above, the structure of the claimed image pickup device for allowing such row-by-row access is different from the structure disclosed by Roberts.

As such, the Applicant submits that claim 1 is allowable over Roberts at least because Roberts fails to disclose or suggest at least the combination of a MOS-type solid-state image pickup device of the type in which output signals necessary to obtain one frame of image data are sequentially generated row by row through shift operation of a row shift circuit including, as recited in claim 1, as amended.

Neither Ernest nor Soeda cures the deficiencies that exist in Roberts. As such, the Applicant submits that claim 14 is allowable at least because none of the applied art of record or combination thereof discloses or suggests at least the combination of a MOS-type solid-state image pickup device of the type in which output signals necessary to obtain one frame of image data are sequentially generated row by row through shift operation of a row shift circuit including at least the combination of: (vi) a readout row-shifter for sequentially supplying the row selection signal to said row selection signal lines; (vii) a reset row-shifter for sequentially supplying the reset signal to said reset signal lines; (viii) an overall reset controller for supplying an overall reset signal to all of said reset signal lines at one time; (ix) an image signal outputting device electrically connected to said output signal lines for generating an image signal representing the output signal and for sequentially outputting the image signal...; and (x) a power source line; wherein said switching circuit includes a series connection of an output transistor and a selection transistor connected between the power source line and an associated output signal line, the output transistor having a gate being capable of receiving a potential generated by the charge accumulated in said cathode, the selection transistor having a gate connected to an associated row selection signal line; and a reset transistor connected between said cathode and said power source line, and having a gate connected to an associated reset signal line; an image signal processor for generating mobile picture data or still picture data using the image signal outputted from said MOS-type solid-state image pickup device; a light shielding device for interrupting light incident to said MOS-type solid-state image pickup device; a still picture indication

signal generator for generating a still picture indication signal indicating shooting of a still picture; a mobile picture mode controller electrically connected to said MOS-type solid-state image pickup device for continually control operation thereof for repeatedly conducting (a) an image readout operation in which the row selection signal is sequentially supplied from said readout row-shifter to a predetermined number of row selection signal lines for sequentially outputting from said image signal outputting device an image signal representing the output signal generated on each said output signal line and (b) an electronic shutter operation in which the reset signal is sequentially supplied from said reset row-shifter to said reset signal supply lines at least associated with said pixel row as an object of the image signal readout operation for sequentially discharge electric charge accumulated in said photoelectric converter elements; and a first still picture mode controller electrically connected to said MOS-type solid-state image pickup device for controlling in place of said mobile mode controller, when the still picture indication signal is outputted, operations of said MOS-type solid-state image pickup device and said light shielding device, for conducting an overall reset operation in which the overall reset controller is operated, in a state in which the operations of said readout row-shifter and said rest row-shifter are stopped, and electric charge accumulated in all said photoelectric converter elements is discharged, and for conducting an image signal readout operation in which said light shielding device is operated and interrupts the incident light for a predetermined period of time after the overall reset operation is finished, and the row selection signal is sequentially supplied from said readout row-shifter to said row selection signal lines for sequentially outputting

an image signal representing the output signal generated on said output signal lines from said image signal outputting device, as recited in claim 14, as amended.

Further, the Applicant submits that claim 20, as amended, is allowable at least because none of the applied art of record or combination thereof discloses or suggests at least the combination of a MOS-type solid-state image pickup device of the type in which output signals necessary to obtain one frame of image data are sequentially generated row by row through shift operation of a row shift circuit, including at least the combination of a plurality of row selection signal lines disposed along a row direction, each being associated with one pixel row for supplying a row selection signal to select pixels of the associated pixel row; a plurality of output signal lines disposed along a column direction, each being associated with at least one pixel column for supplying output signals of the pixels selected by the row selection signal; a plurality of reset signal lines disposed along the row direction, each being associated with one pixel row for supplying a reset signal to clear the pixels of the associated pixel row; a power source line; and an overall reset controller for supplying an overall reset signal to all of said reset signal lines at one time; wherein said switching circuit includes a series connection of an output transistor and a selection transistor connected between the power source line and an associated output signal line, the output transistor having a gate being capable of receiving a potential generated by the charge accumulated in said cathode, the selection transistor having a gate connected to an associated row selection signal line; and a reset transistor connected between said cathode and said power

source line, and having a gate connected to an associated reset signal line, as recited in claim 20, as amended.

For at least these reasons, the Applicant submits that claims 1, 14 and 20 are allowable over the applied art of record. As claims 1 and 14 are allowable, the Applicant submits that claims 4-8 and 10-19, each of which depends from one of allowable claims 1 and 14, are likewise allowable for at least the reasons set forth above with respect to claims 1 and 14.


Conclusion

For all of the above reasons, it is respectfully submitted that the claims now pending patentability distinguish the present invention from the cited references. Accordingly, reconsideration and withdrawal of the outstanding rejections and an issuance of a Notice of Allowance are earnestly solicited.

Should the Examiner determine that any further action is necessary to place this application into better form, the Examiner is encouraged to telephone the undersigned representative at the number listed below.

In the event this paper is not considered to be timely filed, the Applicants hereby petition for an appropriate extension of time. The Commissioner is hereby authorized to charge any fee deficiency or credit any overpayment associated with this communication to Deposit Account No. 01-2300, referring to client-matter number 107317-00026.

Respectfully submitted,


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Enclosure: Petition for Extension of Time (one month)